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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/708,531	03/10/2004	John Gaston Leitch	030732KEL104	2530

32583 7590 12/03/2004

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EXAMINER	
OLSON, LARS A	
ART UNIT	**PAPER NUMBER**
3617	

DATE MAILED: 12/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/708,531	LEITCH ET AL.	
	Examiner	Art Unit	
	Lars A Olson	3617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-28* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *24* is/are allowed.

6)☒ Claim(s) *1-15,18-23 and 25-28* is/are rejected.

7)☒ Claim(s) *16 and 17* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *10 March 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *03292004*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 3, 6, 8 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Yoshida (US 4,763,596).

Yoshida discloses the same semi-submersible trimaran as claimed, as shown in Figures 1-13, that is comprised of an upper deck structure, defined as Part #2, that is supported on a longitudinal center hull, defined as Part #1 in Figure 5, and a pair of column-stabilized longitudinal outrigger pontoons, also defined as Part #1, that are laterally spaced from said center hull, and are on opposite sides of said center hull. A superstructure, defined as Part #10, is also provided on said upper deck structure, as shown in Figures 9-11, a ballast control system is provided to adjust a draft of said trimaran between a shallow transit draft, defined as WL-1 in Figure 5, and a deep operating draft, defined as WL-2 in Figure 5, and a transit propulsion drive is provided on said center hull, as shown in Figure 7, said propulsion drive being comprised of a screw propeller, defined as Part #7.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 7, 9-12, 18-21 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshida.

Yoshida, as set forth above, discloses all of the features claimed except for the use of a semi-submersible trimaran with an operating draft that is 180 to 220 percent of a transit draft, a reduced waterplane area of a center hull that is 40 to 65 percent of a full waterplane area of said center hull, a full waterplane area of a pair of outrigger pontoons that is 3 to 5 times larger than a reduced waterplane area of a pair of outrigger support columns, a total reduced waterplane area of said trimaran at operating draft of 35 to 60 percent of a total full waterplane area of said trimaran at transit draft, an operating displacement of 120 to 200 percent of a transit displacement, an available operating deadweight that is at least twice as large as an available transit deadweight, an upper deck structure with a length that is 1.5 to 2.1 times larger than a width of said upper deck structure, and a center hull with a length that is 150 to 200 percent of a length of a pair of outrigger pontoons.

The use of a semi-submersible trimaran with a specific operating draft, a specific transit draft, a specific waterplane area for each of its three hulls, a specific operating displacement, a specific transit displacement, and specific lengths and widths for its

upper deck structure and three hulls would be considered by one of ordinary skill in the art to be design choices based upon the required load that said trimaran is to carry during operation, and the required size of said trimaran in order for it to carry said required load.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to utilize a semi-submersible trimaran with an operating draft that is 180 to 220 percent of a transit draft, a reduced waterplane area of a center hull that is 40 to 65 percent of a full waterplane area of said center hull, a full waterplane area of a pair of outrigger pontoons that is 3 to 5 times larger than a reduced waterplane area of a pair of outrigger support columns, a total reduced waterplane area of said trimaran at operating draft of 35 to 60 percent of a total full waterplane area of said trimaran at transit draft, an operating displacement of 120 to 200 percent of a transit displacement, an available operating deadweight that is at least twice as large as an available transit deadweight, an upper deck structure with a length that is 1.5 to 2.1 times larger than a width of said upper deck structure, and a center hull with a length that is 150 to 200 percent of a length of a pair of outrigger pontoons, in combination with the semi-submersible trimaran as disclosed by Yoshida for the purpose of providing a semi-submersible trimaran with increased cargo capacity.

5. Claims 2, 4, 25 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshida in view of Neel (US 2,440,345).

Yoshida, as set forth above, discloses all of the features claimed except for the use of an upper deck structure with a runway on its upper surface, and a storage space within said upper deck structure.

Neel discloses an aircraft carrier, as shown in Figures 1-5, which is comprised of three hulls, defined as Parts #13, 13' and 14, an upper deck structure, defined as Part #1, with a runway, defined as Part #2 on its upper surface, as shown in Figure 1, and a storage space within said upper deck, defined as Parts #3 and 4.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to utilize an upper deck structure with a runway and a storage space on a trimaran structure, as taught by Neel, in combination with the semi-submersible trimaran as disclosed by Yoshida for the purpose of providing a semi-submersible trimaran with means for operating and storing aircraft onboard.

6. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshida in view of Grant et al. (US 6,196,151).

Yoshida, as set forth above, discloses all of the features claimed except for the use of a plurality of semi-submersible vessels connected end to end to form an afloat seabase.

Grant et al. discloses a floating platform, as shown in Figure 1, that is constructed from a plurality of semi-submersible runway structures that are connected end-to-end.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to utilize a plurality of semi-submersible structures connected end-

to-end in order to form a floating platform or seabase, as taught by Grant et al., in combination with the semi-submersible trimaran as disclosed by Yoshida for the purpose of providing a means for constructing a floating platform or seabase from a plurality of semi-submersible trimarans in order to provide increased buoyancy and support for said floating platform.

7. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshida in view of Neel, and further in view of Grant et al.

Yoshida in combination with the teachings of Neel shows all of the features claimed except for the use of plurality of semi-submersible vessels connected end to end to form an afloat seabase.

Grant et al., as cited above, discloses a floating platform that is constructed from a plurality of semi-submersible runway structures that are connected end-to-end.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to utilize a plurality of semi-submersible structures connected end-to-end in order to form a floating platform or seabase, as taught by Grant et al., in combination with the semi-submersible trimaran as disclosed by Yoshida and the teachings of Neel for the purpose of providing a means for constructing a floating platform or seabase from a plurality of semi-submersible trimarans in order to provide increased buoyancy and support for said floating platform.

8. Claims 14, 15, 22 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshida in view of Bonnafous (US 3,556,033).

Yoshida et al., as set forth above, discloses all of the features claimed except for the use of a plurality of retractable dynamic positioning drives mounted on the pontoons of a semi-submersible trimaran.

Bonnafous discloses a semi-submersible floating structure, as shown in Figures 1 and 2, that includes three pontoons, defined as Parts #5, 6 and 7, that are each mounted on a structural support, defined as Parts #2, 3, and 4, where each of said supports is connected to a platform or deck structure, defined as Part #1. Dynamic positioning drives, defined as Parts #15, 16 and 17, are provided on each of said pontoons, as shown in Figure 2, and can be fitted in a retracted position in order to enhance the streamlining of said pontoons.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to utilize a plurality of dynamic positioning drives mounted on the pontoons of a semi-submersible trimaran, as taught by Bonnafous, in combination with the semi-submersible trimaran as disclosed by Yoshida for the purpose of providing a semi-submersible trimaran with a means for enhancing directional control of said semi-submersible trimaran during operation.

Allowable Subject Matter

9. Claim 24 is allowed.

10. Claims 16 and 17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kellog et al. (US 6,009,820), Masuyama (US 5,694,878), Leopold (US 3,447,502) and Creed (US 2,405,115) disclose semi-submersible catamaran or floating platform structures with runways for aircraft.

12. Any inquiry concerning this communication from the examiner should be directed to Exr. Lars Olson whose telephone number is (703) 308-9807.

lo

November 29, 2004

LARS A. OLSON
PATENT EXAMINER

Lars Olson
11/29/04